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ABSTRACT

The main purpose of the study was to develop a cooperative education plan for the Mid-Plains Technical Community College area through assessment of: (1) vocational interests of students in grades 9-12, (2) occupational opportunities of employers, and (3) various existing cooperative education programs. Vocational interest assessment consisted of administration of the Ohio Vocational Interest Survey and the Minnesota Work Values Inventory to 929 secondary students; occupational opportunities were assessed by analyzing 827 valid employer responses to an Occupational Opportunities Survey and a Cooperative Education Resources Survey. Visitation was made to all Nebraska two-year postsecondary institutions with Federal cooperative education programs as well as other selected technical community colleges with non-governmental programs. Exemplary cooperative education programs in other States also were surveyed. Findings indicated that, despite high interest levels, only about one-third of the high school students were enrolled in vocational or business-oriented programs. Future enrollments in postsecondary vocational-technical and business schools were highly related to early identification of students. The top-ranking interest area was farming-fishery-forestry, while the greatest occupational need was in the category of services. It was concluded that training programs in the services area were needed, especially for food and beverage preparation and service. (EA)

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A Paper Titled

A COMPREHENSIVE STUDY OF VOCATIONAL INTEREST, OCCUPATIONAL OPPORTUNITIES AND COOPERATIVE EDUCATION FOR THE MID-PLAINS NEBRASKA TECHNICAL COMMUNITY COLLEGE AREA

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This report represents a comprehensive study of vocational interests, occupational opportunities, and cooperative education in the Mid-Plains Nebraska Technical Community College area.

The purposes were:

1. Assessment of vocational interests of high school students.

2. Assessment of occupational opportunities of employers.

3. Gathering of data and review of literature concerning two-year technical community colleges operating cooperative education programs.

4. Development of a plan for cooperative education for the Mid-Plains Technical Community College area.

Background Information

Nebraska is presently divided into six areas designated as Technical Community College Areas. The Mid-Plains Technical Community College Area is located in the western portion of the state excluding the panhandle area. The Mid-Plains area is served by two junior colleges and a technical college now joined under one area board. The area is some 22,000 square miles of sandhill ranch and farm land with a population of approximately 96,000 people.

I. Assessment of vocational interests of high school and junior high school students (9-12) in the Mid-Plains Technical Community College Service area. Included in this phase of the study was a survey of vocational interests of junior and senior high students from ten randomly selected school districts with high school (9-12) enrollments of 100 or more from the 18 county Mid-Plains Nebraska Technical Community College area, plus the McCook, North Platte, and Ogallala school districts. The last three districts were specifically chosen because they represented the largest districts in the service area. The Ohio Vocational Interest Survey and the Minnesota Work Values Inventory were the two instruments which were administered to assess the vocational interests of the students. The Ohio Vocational Interest Survey was selected for several reasons: (1) each of the items making up the scales was coded to a job title, a DOT code, and worker-trait group assignment; (2) the test was appropriate for ninth, tenth, eleventh, and twelfth grades; and (3) the test identified vocational interest corresponding to one and two year post-secondary programs in addition to the more typical academic and four to six year professional program. The Minnesota Work Value Inventory was selected because it was designed to measure the values which are extrinsic to as well as those which are intrinsic in work. Understanding the value structure of a student or client is most important as an aid in clarifying goals and in determining the appropriateness of a given type of training or employment. Nine hundred and twenty-nine (929) students were tested.

II. Assessment of occupational opportunities of employers in the Mid-Plains Technical Community College service area. As a part of this phase of the study, 1116 employers were identified to be interviewed. The employers were asked to list the number of persons employed, job duties of persons employed, job description, and to project future needs according to their

job descriptions. The data supplied by employers as job descriptions were coded by job title and number using the Dictionary of Occupational Titles and related to a corresponding instructional training program and number according to Vocational Education and Occupations. Eight hundred and twenty-seven (827) valid responses to Occupational Opportunities Survey were obtained. In addition a Cooperative Education Resources Survey was administered to the same employers to determine possible cooperative education alternatives which might be feasible in cooperation with these employers. The survey of employers included businesses, industry, social agencies, governmental agencies and educational institutions.

III. Gathering of data and review of literature concerning technical community colleges operating cooperative education programs. Included in this phase of the study was: (1) a comprehensive review of the national literature on post-secondary cooperative education programs in the two year colleges with an emphasis on identifying the key issues and concerns of cooperative education programs, (2) on-site visitation of two year post-secondary institutions in the State of Nebraska presently operating programs associated with or supported by funds authorized by the 1968 Vocational Education Amendments and on-site visitation of selected other technical community colleges operating cooperative education programs not necessarily under the 1968 Vocational Education Amendments, and (3) survey of "best practices" in exemplary cooperative education programs in selected two-year colleges in other states.

IV. Development of a plan for cooperative education for the Mid-Plains Technical Community College area. Based on the data gathered during phases I, II, and III of the study, a plan for cooperative education in the Mid-Plains Technical Community College area was developed. The plan was presented in the form of a series of conclusions and recommendations. The conclusions and recommendations were prepared concerning vocational interests of the high school and junior high school students (9-12) in the Mid-Plains Technical Community College area, occupational opportunities in the Mid-Plains Technical Community College area, and future action relative to program development and cooperative education for the area.

V. Findings and Conclusions Concerning Cooperative Education in Mid-Plains Technical Community College area. Based on the review of related studies and literature, the key issues and concerns involving cooperative education programs were found to be: planning, coordination and orientation of staff prior to implementation; determination of need, objectives and content of program; delineating the role and function of program coordinator; selection and orientation of students, formulating a work/study plan; selecting criteria for determining academic credit; identifying appropriate administrative organizational relationships; criteria for selecting the work station; providing necessary equipment and facilities; developing financial plan and cost estimate; development institutional policies and written agreements; determining the nature and function of the advisory council; defining appropriate public relations procedures; and developing appropriate evaluation procedures.

Findings and conclusions related to the above areas were formulated and are reported under the following headings.

Initial Planning

1. In the area of preliminary planning, coordination, and orientation of staff, the following steps need to be taken prior to making any attempts to implement cooperative education programs:

a. Visit successful cooperative education programs offered in other institutions.
b. Secure a commitment from the institution to support cooperative education type programs.
c. Select and train the necessary program coordinators.
d. Begin new programs with a small group of selected students.

Determination of Program Objectives and Content

2. Specific and defined program objectives stem from several sources--the student, the teacher-coordinator, and the business/industrial jobs. Procedures for the development of a program of studies should include task analysis and the considered judgment of the professionals in the field.

Role of Program Coordinator

3. The employment of an able, enthusiastic teacher-coordinator may be the most important single factor once the decision is made to provide cooperative education programs. The coordinator employed should possess industrial experience as well as be able to communicate effectively with campus colleagues.

4. The coordinator's function should include identifying, planning, developing, and coordinating the supervision and evaluation of the cooperative education program.

Selection and Orientation of Student

5. Initial assessment of students for possible participation in cooperative education programs should be followed by intensive orientation which would include in-depth interviewing and counseling. It was further concluded that a cooperative education student handbook be developed as an invaluable counselor aid. Such a handbook should contain detailed descriptions of all elements of the program including job descriptions of student coordinator, employer, and overall evaluation procedures.

6. Student trainees should be provided learning experiences which hold promise of enabling them to be tolerant of the needs, values, and personal characteristics of co-workers, supervisors, and customers.

7. Student trainees initially should enter the job with basic skills and specialized competencies necessary to prevent them from experiencing failure and equip them to experience achievement, recognition, and responsibility in their training.

8. Students who show satisfactory academic progress in at least 6-8 credits should be placed on internship following in interview with the coordinator.

Work/Study Plan

9. Work/study plans should have maximum flexibility to fit the variety of needs of students and employers.

10. The alternating semester programs (wherein students are full-time students one semester and full-time employees the subsequent semester) were probably the most satisfactory arrangement.

Academic Credit

11. It was concluded that academic credit should be given in cooperative education work/study plans. Typically the student received up to three or four hours of credit per semester, if the job was related to his occupational goal, with a maximum of sixteen hours credit toward graduation.

Administrative Organizational Relationships

12. Depending on the size of the institution, the program coordinator may report directly to the dean of instruction or report to a dean or a supervisor of co-op education, who then would report to the dean of instruction. The supervisors may be department chairpersons or may be separate positions, again depending on the size of the co-op programs. It was concluded that the daen of instruction should be administratively responsible to assure the academic status of the cooperative education programs.

Selecting Work Stations

13. Criteria for the selection of the work station for cooperative education programs should include the following:

a. The work station should meet the student's needs.
b. Interested employers should be involved in the selection.
c. A variety of work stations should be available.
d. Activity at the work station should provide the student a salary.

Equipment and Facilities

14. Although no special equipment or facilities beyond what would normally be provided for a quality technical programs was deemed necessary to conduct a cooperative education program, special consideration should be given to location and access.

Financing and Costs

15. It was concluded that general cooperative education programs costs no more than regular academic programs. When credit was given in work/study plans, the cost per student remained about the same. An additional fee was used by some institutions for students enrolled in the cooperative education program.

Policies and Agreements

16. Several possible types of cooperative agreement forms were utilized. One institution also had cooperative education policies. It was concluded that institutions should refer to the literature for model contracts and agreement forms.

Advisory Councils

17. The post-secondary institutions included in this study need to be concerned about the basic make-up and function of the various advisory committees.

18. The type, size and functions of the advisory council should be organized in accordance with established guidelines for such committees and be varied depending on the administration's philosophy and scope of the program.

Public Relations

19. Public relations programs may well include the following activities:
    a. Breakfasts with employers
    b. Appreciation dinners.
    c. News releases.
    d. Issue certificates, letters, newsletters, etc.

Evaluation

20. Both the coordinator and employer should evaluate the student trainee using a standard form which would include quality and quantity of work performed, work habits, attitudes, and attendance.

Other

21. Effective, successful cooperative education programs gave positive results for the college; successful programs tended to enhance community support for the college, aided in recruiting good students, and served to stimulate students to do good work. Graduates of successful cooperative education programs secured jobs readily.

Findings and conclusions concerning vocational education in the Mid-Plains Technical Community College Area.

Vocational Interest

1. Despite an interest level of 87 percent by students in grades 9-10 and 84 percent of students in grades 11-12, only about one-third of the students were enrolled in vocational or business oriented programs. It was concluded that either such programs were not available to all students or that they were not adequately counseled.

2. Future enrollments in post-secondary vocational-technical and business schools were highly related to the early identification of students who frequently enrolled in vocational preparation programs in the secondary schools. This conclusion was based on the high percentage of students who were enrolled in such programs in grades 9 through 12 along with a similar percentage indicating an interest in post-secondary vocational-technical and business schools.

3. Considerable student interest was expressed in a broad spectrum of occupations that could be offered through one- and two-year post-secondary school programs. Of particular interest were areas oriented toward people,

agriculture, instructive services, customer services, skilled personal services, promotion and communication, management and supervision, and artistic, musical and literary areas.

4. In grouping the interest occupations under general categories, the top ranking interest area was Farming-Fishery-Forestry, followed in order by Professional, Technical and Managerial, Service, Structural, Bench, Clerical and Sales, Machine Trades, and Processing.

Work Values

5. The work values of the students seemed to be materialistic in nature and indicated an orientation toward visible and tangible results. Way of Life, Economic Return, Achievement, Supervisory Relations and Security. were among the higher ranking values selected by students. Two distinct groups of students each with a unique set of work values were interested in attending the post-secondary institution. The single group whose work values included Way of Life, Achievement, and Supervisory Relations was interested in the Training, Teaching, Nursing, Care of People and Animals, and Customer Service type occupations; and the other group whose work values included Economic Return and Security were more interested in the applied, technical, and machine oriented areas. These student work values should be reflected in the types of programs offered by the one- and two-year post-secondary colleges who are interests in attracting both groups of students.

Findings and conclusions concerning occupational opportunities in the Mid-Plains Technical Community College area

Occupational Need

1. The greatest occupational need was in the category of Services followed by Clerical and Sales, Professional, Technical and Managerial, Structural, Miscellaneous, Farming-Fishery-Forestry, Machine Trades, Bench and Processing. The occupational need categories were somewhat different in order in comparison to the vocational interests rankings particularly the categories of Farming-Fishery-Forestry, Service, Clerical and Sales. When the vocational interest factors of only those students interested in the one- and two-year post-secondary programs were compared with the occupational need data, greater similarities existed, although the factor of Farming-Fishery-Forestry still showed considerable difference between need and interest. It was concluded that potential exists for the one- and two-year post-secondary institutions in the Mid-Plains Technical Community College areas to provide service for a large share of those businesses in the area who have occupational opportunity needs by utilizing the Mid-Plains area students if appropriate programs are offered in the Service area, the Clerical and Sales areas, and in the Medicine and Health area of the Professional, Technical and Managerial occupational category.

a. It was concluded that programs in the Services area are needed in the following categories: Food and Beverage Preparation and Service, Lodging and Related Services including institutional and home management, and Miscellaneous Personal Services such as nursing assistance, medical technicians, physical therapy, home health aide, care and guidance of children and agriculture supplies/services.

b. In the Clerical and Sales areas it was concluded that a need existed for training of sales oriented individuals in the program areas of apparel and accessories, general merchandise, home furnishings, hardware and building materials and farm and garden supplies and equipment, automotive, industrial marketing, and wholesale trade, and in the office occupations area of computing and account recording.

c. In the Professional, Technical and Managerial area it was concluded that there was a need for individuals trained in nursing, medical lab assisting, radiology technology, inhalation therapy, medical assistants, and surgical technicians.

Employment Pattern and Need

2. The employment patterns and the need patterns were found to be similar. The major difference was in the Service area where the data suggested a significant increase in services would be needed during the next three years, particularly in the food and beverage preparation and service area. The other category of need which showed a sizeable increase over present employment was in the structural area. Again it was concluded that the highest need exists for training programs in the food and beverage area such as food distribution, food services, food management, waiter/waitress, cook/chef, baker and meat cutter.

Participation by Business and Industry

3. It was concluded that much work needs to be done to increase the concern and willingness of employers of the area to become involved in cooperative education programs.

4. The greatest opportunity for early results rests with employers of 25 or more employers.

5. Concerning possible participation in cooperative education by employers, areas of moderate interest included making available opportunities for meaningful field trips, providing personnel to talk to students, reporting employment needs, and providing opportunities for work experience and career awareness.